

Patent Serial No. 09/807,067

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 22, 2003. Claims 1-9 remain pending in this application. Claims 1 and 6 are the independent claims. Favorable reconsideration is respectfully requested.

The Office Action rejected claim 6 under 35 U.S.C. § 102(b) as being anticipated by Jiro Ida (JP Patent 07-066406; hereinafter "Jiro Ida"). In addition, the Office Action rejected claims 1-5 under 35 U.S.C. § 103(a) as being unpatentable over Kawaguchi (U.S. Patent No. 5,739,573; hereinafter "Kawaguchi") in view of Lur et al. (U.S. Patent No. 6,013,569; hereinafter "Lur"). The Office Action rejected claims 7-9 under 35 U.S.C. § 103(a) as being unpatentable over Jiro Ida. Applicants respectfully submit that the pending application and claims are patentable for at least the following reasons.

Claim 6 has been amended so that Jiro Ida does not recite every element of Applicants' invention. Jiro Ida fails to disclose that the depth of the trench (TR) is equal to maximally half the height (H1) of the larger isolation layer as recited in Applicants' claim 6. Referring to Jiro Ida, Fig. 1(e), the depth of the trench does not appear to be half the height of the larger isolation area. Since the drawings in Jiro Ida are not drawn to scale, the depth of

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the trench cannot be inferred. Since Jiro Ida fails to recite every element of claim 6, reconsideration is respectfully requested.

In response to the § 103 rejection of claims 1-5 as being unpatentable over Kawaguchi in view of Lur, Kawaguchi does not disclose that the "deposition of the metal layer is a directional deposition". Kawaguchi discloses the deposition process in col. 10, lines 65-67 and col. 11, lines 1-30, but fails to recite directional deposition as disclosed by Applicants' claim 1. Lur fails to provide that which Kawaguchi lacks, i.e., directional deposition (col. 9, lines 18-52). Lur discloses a physical deposition processes but does not disclose directional deposition. In addition, Lur does not specifically disclose a trench that is "maximally half the height of the larger isolation area". Lur only discloses that "the spacers extend above the surface of the polysilicon electrode" (col. 8, lines 59-60). Therefore, Lur fails to disclose the depth of the trench. Also, referring to Lur, Fig. 8, the depth of the trench does not appear to be half the height of the larger isolation area.

Therefore, a person of ordinary skill in the art would not be able to modify Kawaguchi and use the disclosure in Lur to produce Applicants' device since the combination of the two does not teach all the claim limitations set forth by Applicants. Furthermore,

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there is no motivation for one of ordinary skill in the art to modify or combine Kawaguchi and Lur. Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) objection.

Claims 7-9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Jiro Ida. However, Applicants respectfully submit that the precise specifications and measurements given for the depth of the trench cannot be inferred from Jiro Ida's Fig. 1. Section 608.02 (k) of the MPEP states that "Indications such as "actual size" or "scale 1/2" on the drawings are not permitted since these lose their meaning with reproduction in a different format". Since the MPEP recognizes that drawings lose their actual size or scale when reproduced, a person of ordinary skill in the art could not look at Jiro Ida's Fig. 1 and infer the specific measurements disclosed in Applicants' claims 7-9 (e.g., the depth of the trench is at least 1/20th of the height of the projecting region). Furthermore, a person skilled in the art would not be motivated to use Jiro Ida to arrive at the result disclosed by Applicants. Therefore, Applicants' respectfully request withdrawal of the 35 U.S.C. § 103(a) objection.

In view of the foregoing amendments and remarks, it is respectfully submitted that the currently-pending claims are clearly patentably distinguishable over the cited and applied

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references. Accordingly, entry of this amendment, reconsideration of the rejections of the claims over the references cited, and allowance of this application is earnestly solicited. Applicants' agent can be contacted at the number below.

Respectfully submitted,

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